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(74) Agent: **KWON, Hyuk-Sung**; 12F, Seo-Jeon Bldg.,  
1330-9, Seocho-Dong, Seocho-Gu, Seoul 137-070 (KR).

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(71) Applicant (*for all designated States except US*): **CON-KEYNET CO., LTD.** [KR/KR]; 9F, Korea Veterans Association Bldg., 7-13, Sinchoen-Dong, Songpa-Gu, Seoul 138-792 (KR).

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(72) Inventors; and

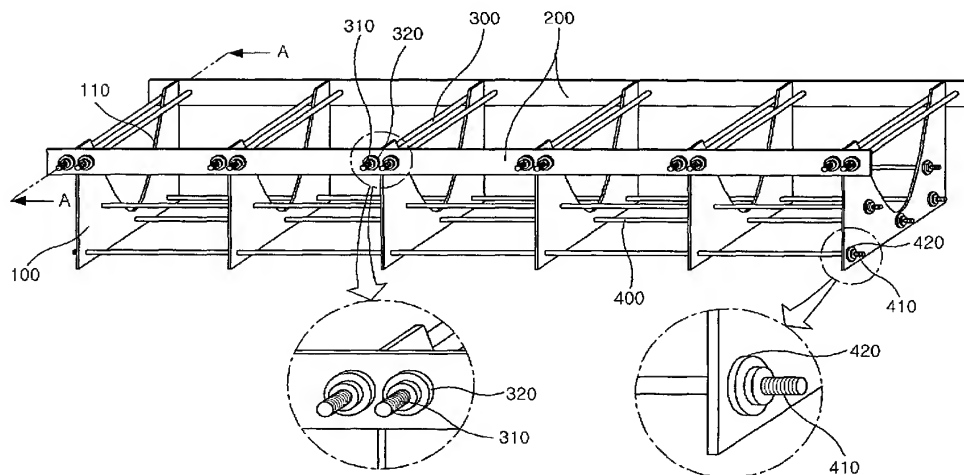
(75) Inventors/Applicants (*for US only*): **KIM, Kwang-Man** [KR/KR]; 22-1408, Jangmi Apt., 11, Sinchoen-Dong, Songpa-Gu, Seoul 138-240 (KR). **YUN, Sang-Mun** [KR/KR]; 101-905, Dongah-hangaram Apt., Pungnap-Dong, Songpa-Gu, Seoul 138-040 (KR).

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(54) Title: REINFORCEMENT OF FOUNDATION



(57) Abstract: The present invention relates to a reinforcement of foundation which comprises at least two base steel plates arranged to be upright with respect to the ground and shaped as a plate with a cutaway formed at a top portion thereof, a reinforced steel plate coupled to upper portions of both ends of the base steel plates, fastening steel rods placed to extend in a longitudinal direction of the base steel plate and coupled to the reinforced steel plate, and a connection steel rod bored sequentially through the base steel plates and coupled to the base steel plates. According to the present invention, huge concentrated load exerted on a foundation can be uniformly distributed, and thus, load transmitted from a pillar or column installed on the foundation can be stably supported. Further, the thickness of foundation can also be reduced as compared with the prior art, and thus, the excavation can be made shallow. Accordingly, the period and expense of construction can be reduced.

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## INTERNATIONAL SEARCH REPORT

International application No.  
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**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 E02D 27/34**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 E02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

KR, JP : IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	D1 : US 5564235 A (Michael Butler) 15 OCTOBER 1996 See the whole document	1
A	D2 : US 5664377 A (Arthur Angelo) 9 SEPTEMBER 1997 See the whole document	1
A	D3 : JP H14-121747 A (SIN NIPPON SEITETS CORP.) 26 APRIL 2002 See the whole document	1
A	D4 : KR 20-341381 U (HILL ENGINEERING) 30 JANUARY 2004 See the whole document	1

☐ Further documents are listed in the continuation of Box C:

☒ See patent family annex.

## \* Special categories of cited documents:

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Authorized officer

CHOI, Byoung Suk

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
D1	US5564235A	AU3418995A1	22.03.1996
		US05564235	15.10.1996
		US5830378A	03.11.1998
		US6076320A	20.06.2000
		US6120723A	19.09.2000
		US6205725BA	27.03.2001
		US6367764B1	09.04.2002
		US6367764BA	09.04.2002
		US6550213B1	22.04.2003
		US6550213BA	22.04.2003
		W09606985A1	07.03.1996
D2-D4	NONE		